

REMARKS

Claims 2-7, 9-17, 19-31, and 39-46 are now pending in the application. The following remarks are believed to be fully responsive to the outstanding Office Action and are believed to place the application in condition for allowance. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the remarks contained herein.

REJECTION UNDER 35 U.S.C. § 112

Claims 2-7, 9-17, 19-31, and 39-46 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. This rejection is respectfully traversed.

The Examiner states that Claims 45 and 46 are not in compliance with 35 U.S.C. § 112, second paragraph, as each of Claims 45 and 46 recite elements not disclosed in the specification. Specifically, the Examiner asserts that comparing a fluid property and a current information to the other of the fluid property and the current information to determine an operating condition of a system or a compressor is not disclosed. Applicants respectfully disagree.

The specification discloses a refrigeration system (320) having a compressor (10), a condenser (322), and an evaporator (326). See the specification at Figure 7. A sensor (330) may be disposed proximate to the compressor for sensing discharge pressure and a temperature sensor (332) may be positioned at a mid-point of the condenser. See the specification at Paragraphs [0062] and [0063] and Figure 7. The

specification discloses that the discharge pressure sensor may be used in conjunction with a current sensing device (102) to detect compressor faults. See the specification at Paragraph [0062]. For example, current drawn by the compressor may be compared with a discharge pressure of the compressor to differentiate between an intermittent compressor problem such as a fluctuation in supplied voltage and a permanent compressor fault. See the specification at Paragraph [0062].

The temperature sensor provides an indication of condenser temperature and may be used for comparison to current information to diagnose between a compressor fault and a system fault. See the specification at Paragraph [0063]. Figure 13 illustrates the relationship between current and condenser temperature, whereby a given current value may be referenced relative to a condenser temperature value to determine a compressor fault. Applicants also direct the Examiner to the chart contained in Paragraph [0065], which identifies various system and compressor faults that may be determined based on system parameters. Applicants note that a comparison between a high condenser temperature and a high current in a cooling mode of the refrigeration may indicate a system fault such as an outdoor fan blockage or an overcharge condition. This relationship is further illustrated by the plot of current versus condenser temperature in Figure 13.

In light of the foregoing, Applicants respectfully submit that independent Claims 45 and 46 are sufficiently supported by the specification and respectfully submit that independent Claims 45 and 46, as well as Claims 2-7, 9-17, 19-31, and 39-44, respectively dependent therefrom, are in condition for allowance. Accordingly, reconsideration and withdrawal of the rejection is respectfully requested.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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